

A courteous question as to my pursuit, an inquiry about a flower or tree, a sympathetic phrase about nature in one of its varied forms, such things as these have been the small beginnings of great things making life broader, happier.

MISCELLANEOUS NOTES ON COLEOPTERA.

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During the past year several interesting facts in regard to the feeding habits of various beetles were ascertained and some of them seem worthy of publication. All observations reported here were made in the vicinity of Springfield, Mass., during the spring and summer of 1916.

Late in the winter, a few twigs of *Rhus glabra* L. were collected and placed in jars in the laboratory. As the object of the experiment was to obtain clerids, it could not be considered a great success, as only three specimens of *Phyllobaenus dislocatus* Say appeared. This species was reported by Blackman,† from the twigs of *Pinus strobus* L. However, the longicorns *Liopus fascicularis* Harr. and *Psenocerus supernotatus* Say were very plentiful. A mention of the latter species from this plant was made by Dow.‡ The minute ipid, *Pityophthorus consimilis* Lec. was also very abundant in the wood, and it is probable that this species furnishes something toward the food supply of the clerid.

Numerous trips were made to the region along the railroad where carrion, such as fowls, pigeons, cats, etc., are often found and careful inspection of the remains usually produced good results, especially in the families Silphidæ, Staphylinidæ and Nitidulidæ. An attempt was made to tabulate the relative abundance of the species of the genus *Silpha*. For a period of about three weeks collections of the specimens were made over a restricted locality. On April 21, only the species *inaequalis* Fab. and *noveboracensis* Forst. were to be found but these were

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† N. Y. State College of Forestry, Vol. XVI, November, 1915, p. 53.

‡ Bull. Brooklyn Ent. Soc., Vol. XI, p. 20.

already present in considerable numbers. At the end of the period the count showed the following species: *S. noveboracensis* and *inaequalis* is about equal numbers, roughly 1400 in all; 15 specimens of *surinamensis* Fab. had been taken as well as six of *lapponica* Hbst. and about 20 *americana* L. The genus *Necrophorus* was not much in evidence at any time. *N. marginatus* Fab. leads the list with 16 specimens, *americanus* Oliv. following with two and *sayi* Lap. and *orbicollis* Say with one each.

One dermestid, *D. talpinus* Mann., heretofore reported only as far east as Indiana* was taken in quite considerable numbers. Apparently the stock cars serve as the means of dispersal of this species, as it was not taken elsewhere than along the tracks.

The nearly cleaned skeleton of a gray squirrel, inspected on June 6, gave, among others, specimens of *Prionochæta opaca* Say, a silphid, and, clinging closely to the inside of the skull, was one specimen of *Phenolia grossa* Fab., one of our largest nitidulids.

Of the flowers that give the collector many forms of Coleoptera, those of *Ceanothus americana* L. seem the most prolific, and many species can be readily taken here although rare on the flowers of any other plant. For instance, *Mycterus scaber* Hald. is quite common in this region on *Ceanothus* but I have yet to take it elsewhere. The longicorns of the genera *Leptura*, *Strangalia* and *Typocerus* are always abundant on pleasant days and literally hoards of the smaller species of Mordellidæ can be swept from the heads of flowers. Occasionally a wanderer appears, as was the case on July 24, when three specimens of the southern *Copidita thoracica* Fab. were taken on a single plant. At the end of the season this proved to be an unique capture. The flowers of the different species of *Viburnum* are also good collecting places and among others, copulating specimens of *Molorchus bimaculatus* Say were taken on June 12. *Leptura ruficollis* Say is also not uncommon on the flowers of this shrub. Late in the spring, when the flowers of the skunk cabbage are past their prime, certain nitidulids, such as *Omosita colon* L. and *Glischrochilus (Ips) fasciatus* Oliv. are quite abundant in the hoods, apparently feeding on the pollen. The large mountain mint, *Pycnanthemum*

* Blatchley, Coleoptera of Indiana, 1910.

incanum (L.) Michx. proves attractive to *Rhipiphorus limbatus* Fab., as well as to certain other forms which however do not show special preference to the Labiatae.

During the summer eleven species of the family Cleridæ were taken, six species being of the genus *Hydnocera* Newm. With their food plants and dates, they are as follows: *H. pallipennis* Say (July 16–Sept. 16) on *Carya glabra* Spach., *C. alba* K. Koch., *Juglans cinerea* L. and *Platanus occidentalis* L.; *H. humeralis* Say (Aug. 1), *H. longicollis* Ziegl. (July 15–24), and *H. verticalis* Say (July 16–17), all from *Carya glabra* Spach., and *H. lecontei* Wolc. (June 14–15) was found on *Betula populifolia* Marsh and *Verbascum thapsus* L., although this species probably came from a nearby stand of *Carya glabra*. Of the other genera collected, one specimen of *Monophylla terminata* Say was taken from *Vitis labrusca* L. on July 15, and, from *Carya glabra*, three specimens of *Ellipotoma laticornis* Say (July 16–17) and one specimen of *Phyllobænus dislocatus* Say on July 16. *Trichodes nutalli* Kirby was found between July 30 and August 4, on the flowers of *Taraxacum officinale* Weber, *Daucus carota* L., *Pycnanthemum incanum* (L.) Michx., and *Chrysanthemum leucanthemum* L. The remaining species, *Necrobia violacea* L. was uncommon under the almost cleared skeletons of hens.

An interesting incident bearing on the instincts of myrmecophilous Coleoptera came under my observation one afternoon while returning from a collecting trip. A large brown ant (species unknown) was dragging an apparently dead beetle across a path. Stooping to pick the pair up for examination, I was much surprised to have the beetle take immediate flight from my hand. This flight was arrested by the net and the beetle proved to be the well known myrmecophile, *Cremastochilus canaliculatus* Kirby. The abduction by the ant did not disturb the beetle nearly as much as the outside interference. The most interesting part of the whole affair is the fact that the ant was still clinging to the fore leg by its mandibles. I wonder if the beetle would have stopped as soon as possible and allowed the ant to resume the interrupted journey.